QLogic Global Services Replacement Procedures

SANbox 9100

CPU Replacement

What you will need for this procedure:

- **Replacement CPU Blade for SANbox 9100**
- **ESD (Electrostatic Discharge) Wrist Strap**
- **Workstation from which you can telnet to access switch command line**

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Before you begin

Be Safe

The assemblies used in the switch chassis are ESD sensitive. Observe ESD handling procedures when handling any assembly used in the switch chassis.

Be Safe

- When handling components or the switch chassis itself, be sure to observe safe ESD handling procedures.

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Information Gathering

Original Switch IP Address: _____

Original Switch Serial #: _____

Original Switch Admin Username/Password: _____

Replacement Switch Serial #: _____

Licensed Feature Keys: _____

Gather Information

- ❑ Fill out the above with information given to you by the onsite contact.
- ❑ If the Serial Numbers are Licensed Features are not know, you can determine them later as you procedure with these instructions.

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Identify CPU for Replacement

Identify CPU for Replacement

- The SANbox 9100 has only one CPU module.

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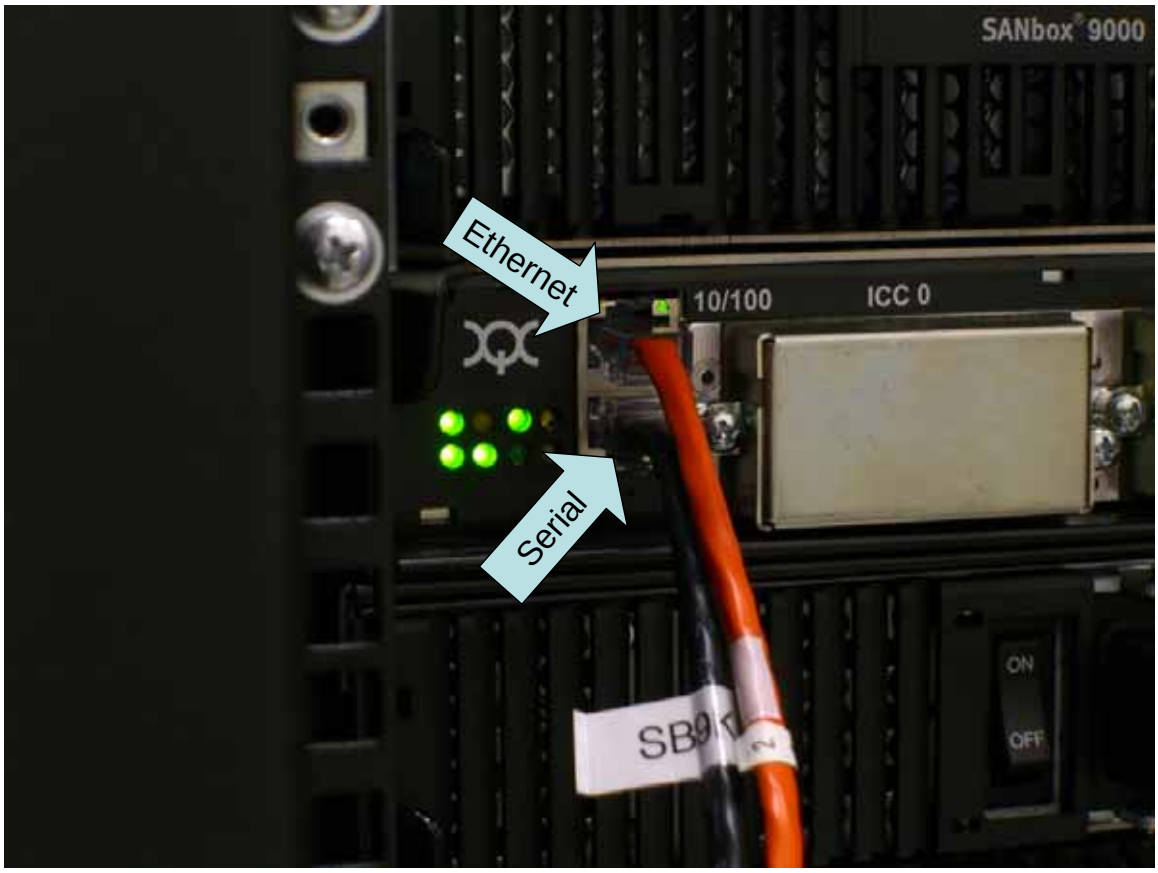
Cable Labeling



Cable Labeling

- ❑ Label the Ethernet Cable and Serial Cable (if present).

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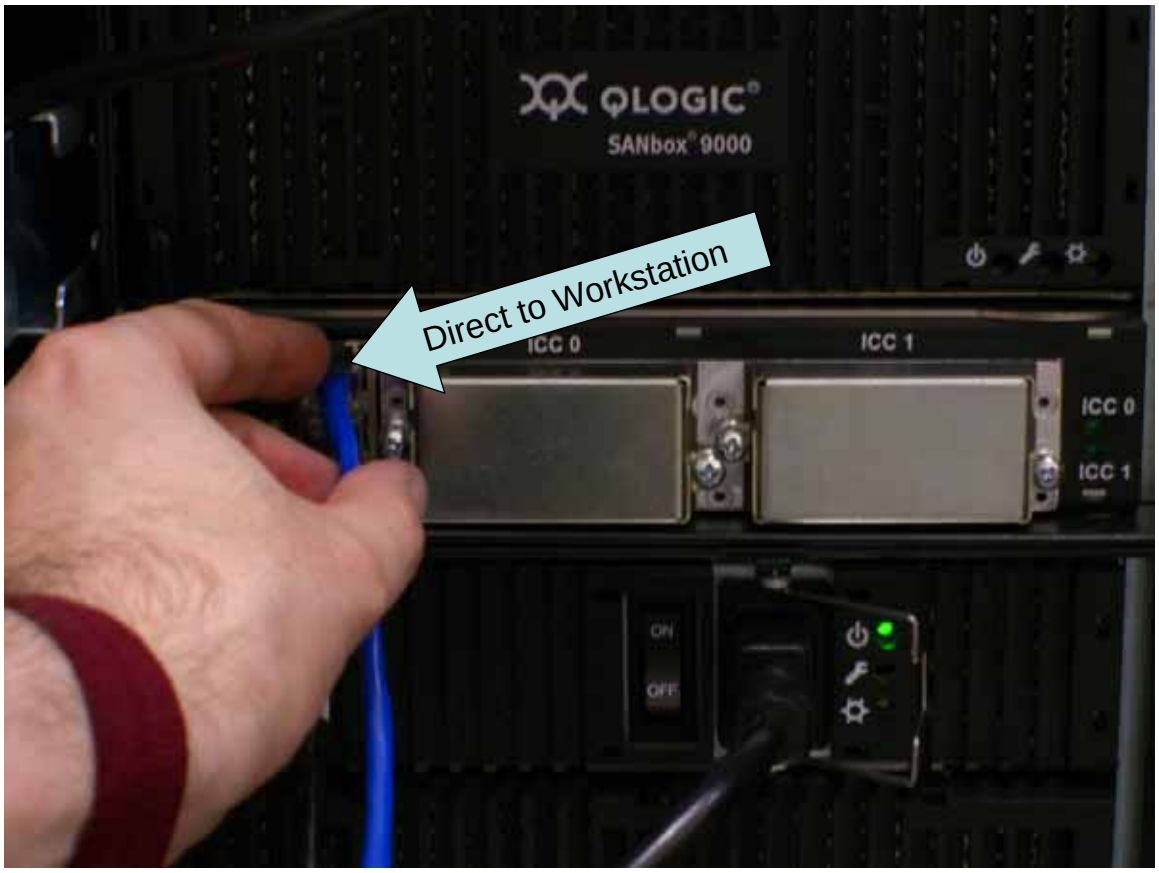
Connect Workstation Directly to Switch



Connect Workstation Directly to Switch

- Disconnect the original Ethernet Cable and connect your workstation directly to the switch via a second Ethernet cable. Make sure to configure your workstation Ethernet port so it can access the switch's subnet.

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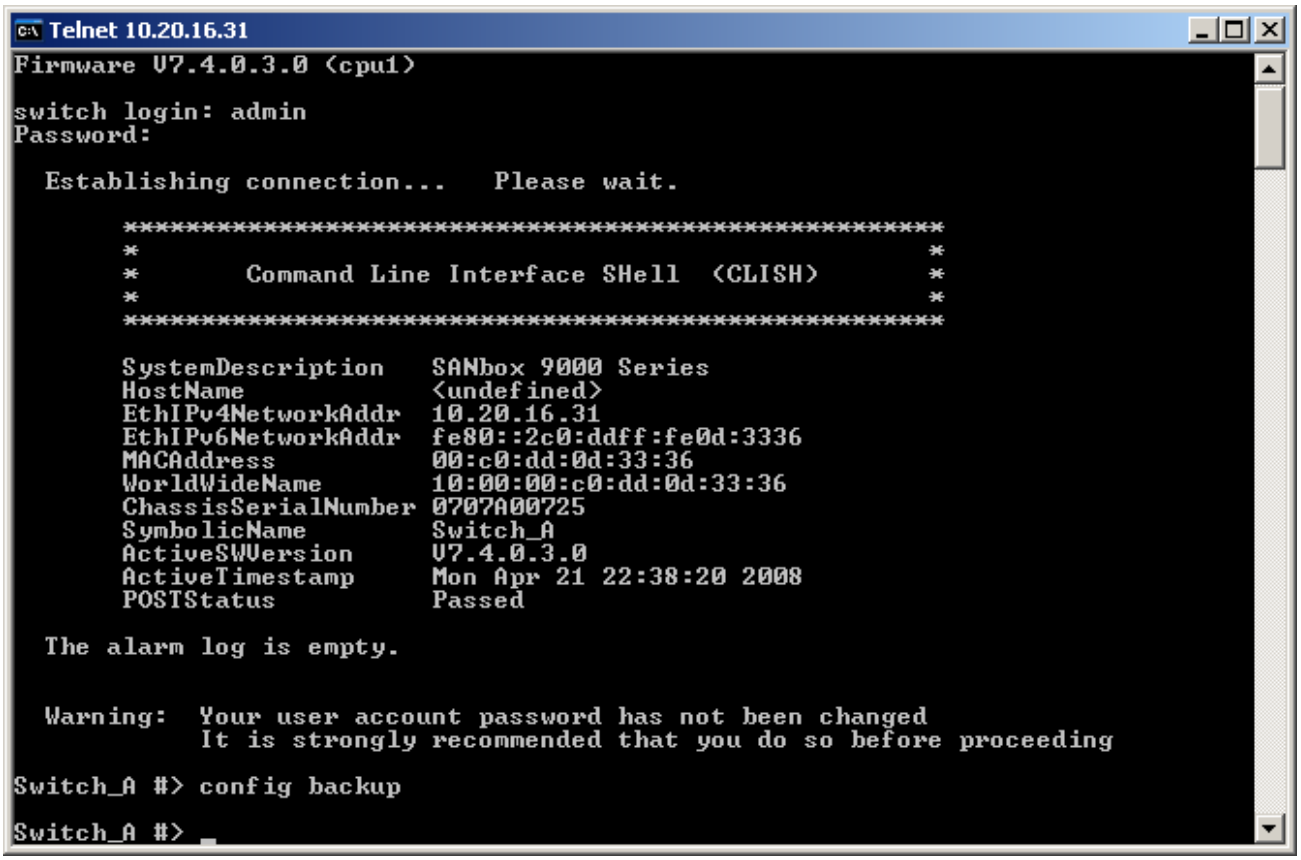
Backup Switch Configuration



Backup Switch Configuration

- Telnet to the switch and login using the admin username and password.
- Now, perform the **config backup** command.

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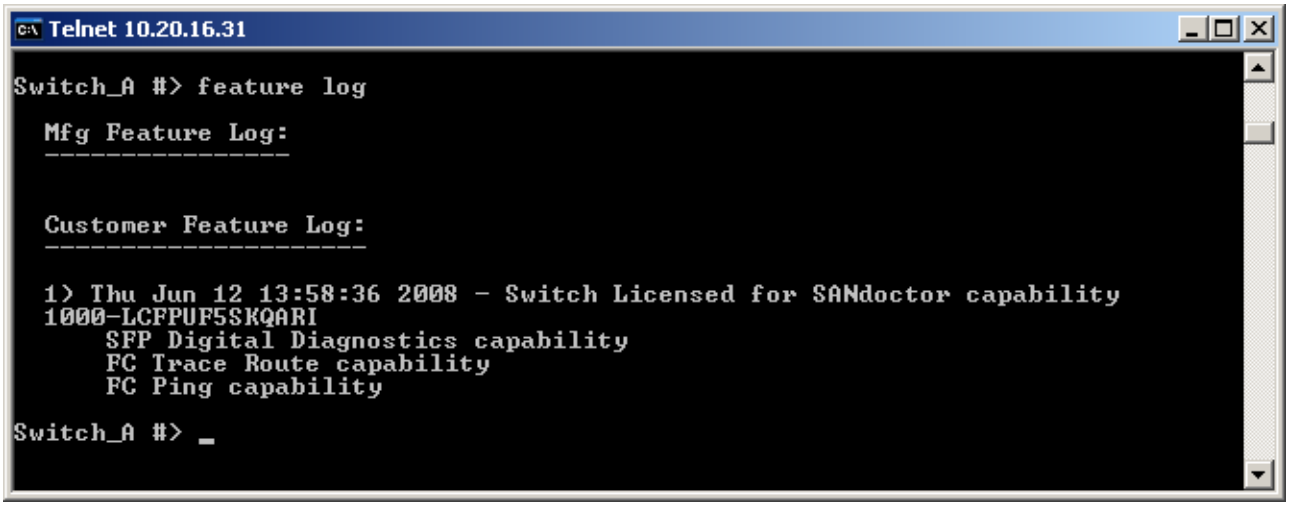
Inventory Feature Licenses



Inventory Feature Licenses

- Make an inventory of the license keys installed on this switch by using the **feature log** command.
- Record the license keys (XXXX-XXXXXXXXXXXXX).

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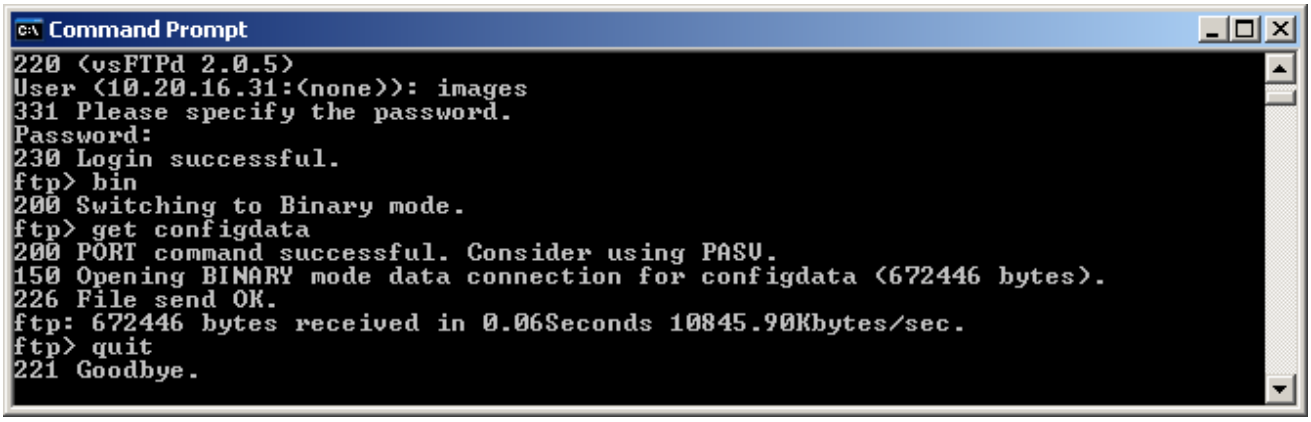
FTP Configuration from Switch



FTP Configuration from Switch

- From the workstation, open an FTP session to the switch using the switch's IP Address.
- Login to the switch's FTP server. Username and password are both **images**.
- Once logged in, perform the **bin** command.
- Next, use the **get configdata** command to pull the switch archive to the workstation.

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Power Down the Switch

Power Down the Switch

- Power down the switch by turning off both power supplies.

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Remove Ethernet & Serial Cables

Remove Ethernet & Serial Cables

- ❑ Remove the cables connected to the CPU Module.

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Rotate CPU Blade Latch to Open Position

Rotate CPU Blade Latch to Open Position

- ❑ Rotate the latch on the CPU Blade to the Open Position.

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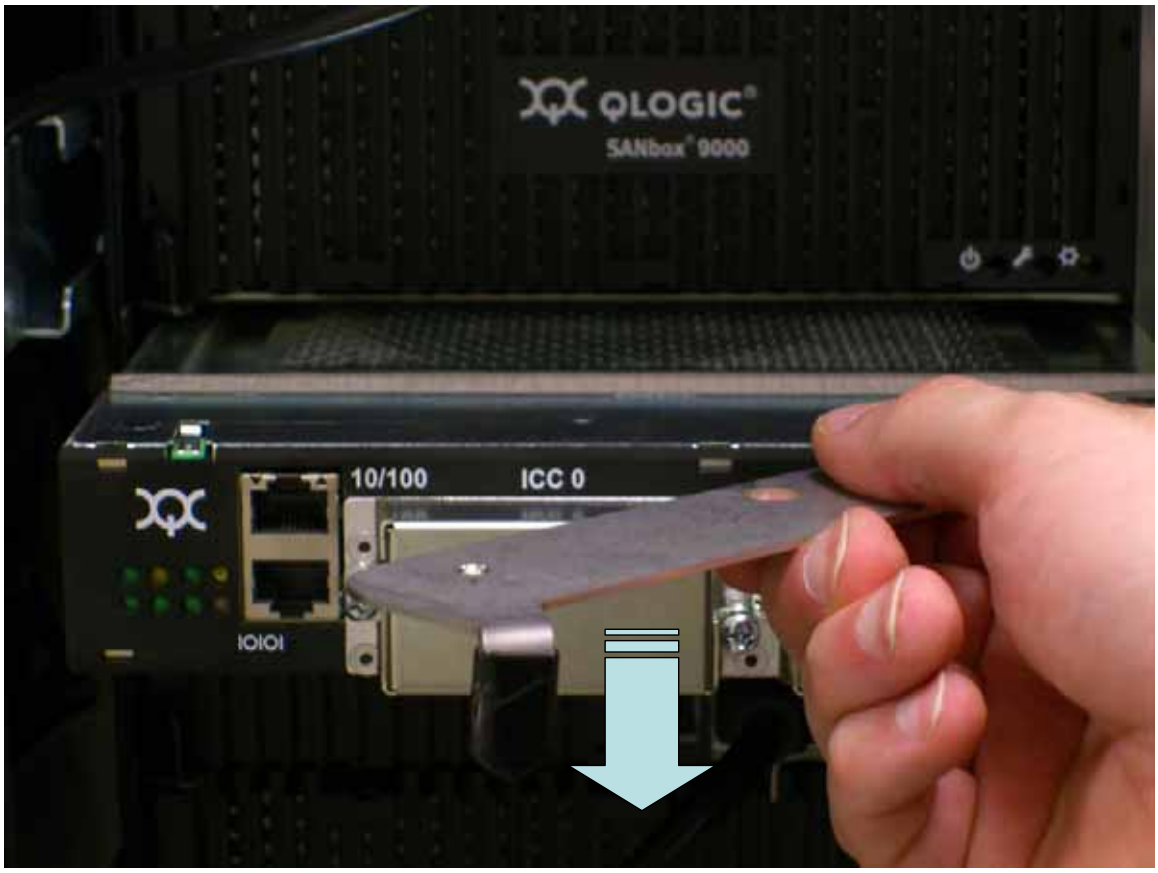
Remove CPU Blade



Remove CPU Blade

Warning! The CPU Blade heat sinks can become very hot. Handle with care.

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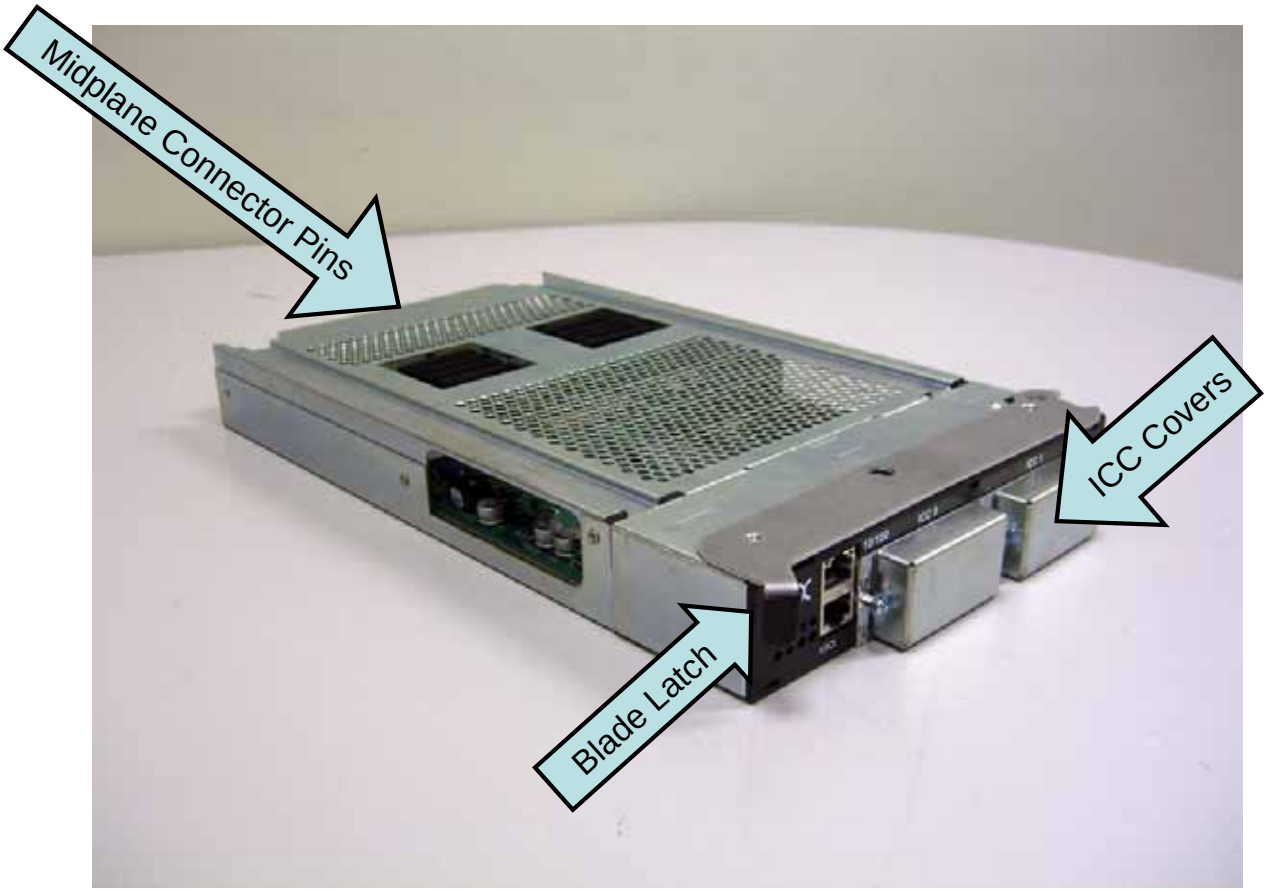
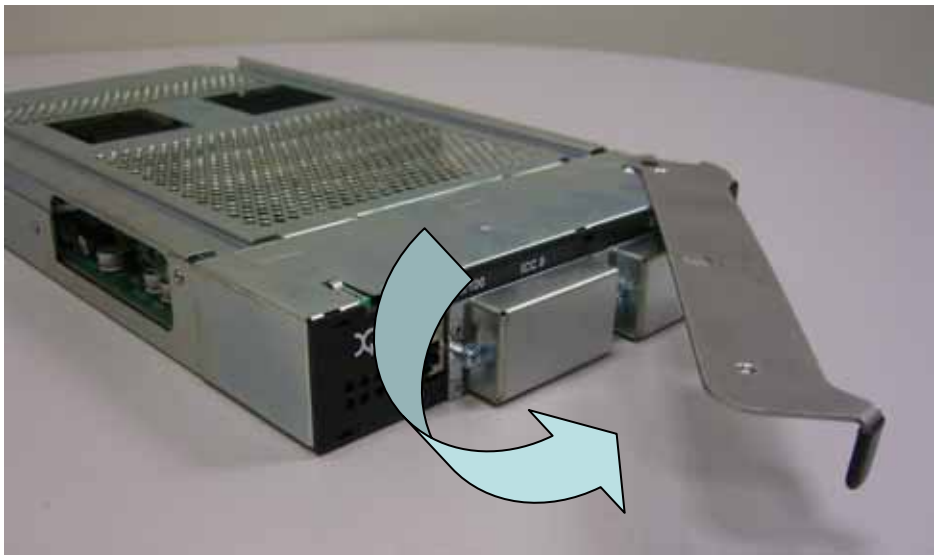
Step 7) Prepare Replacement Blade



Prepare Replacement Blade

- ❑ Prepare the Replacement Blade by rotating the Blade Latch into the Open position.



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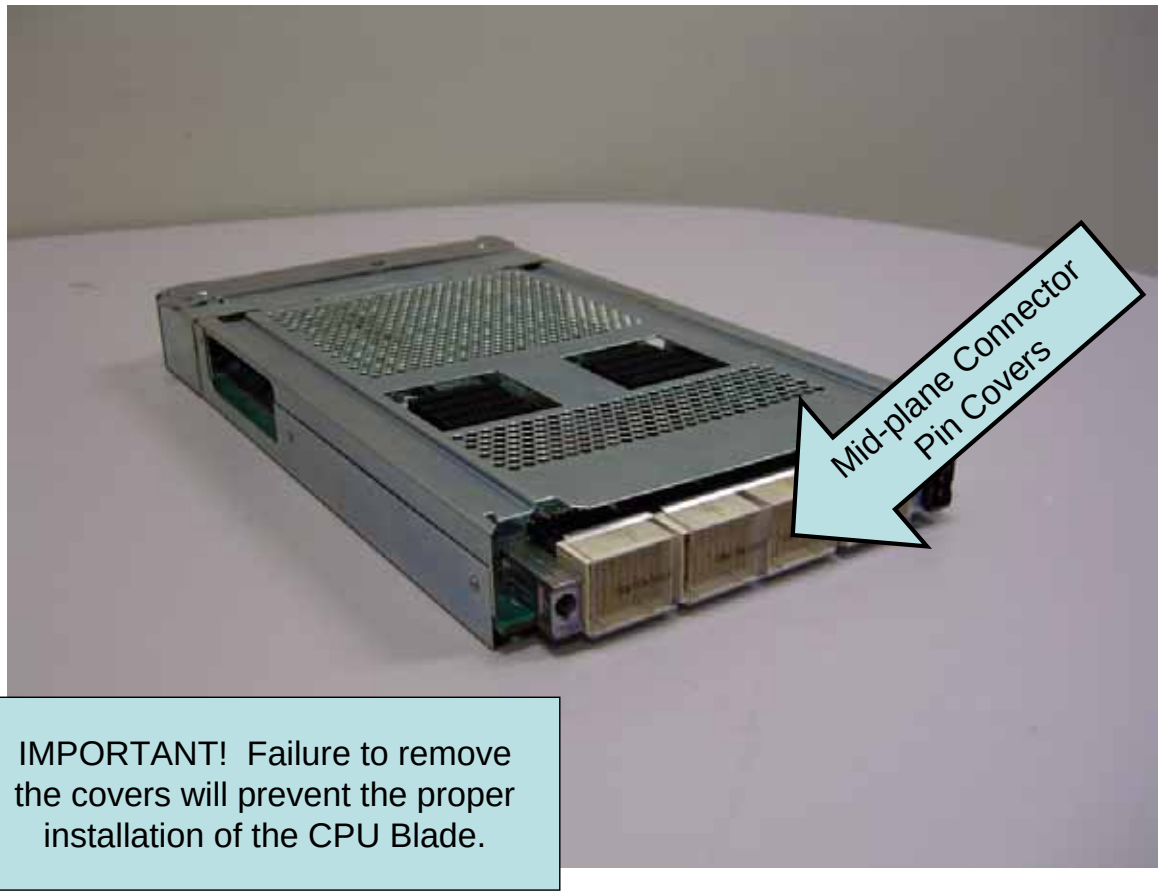
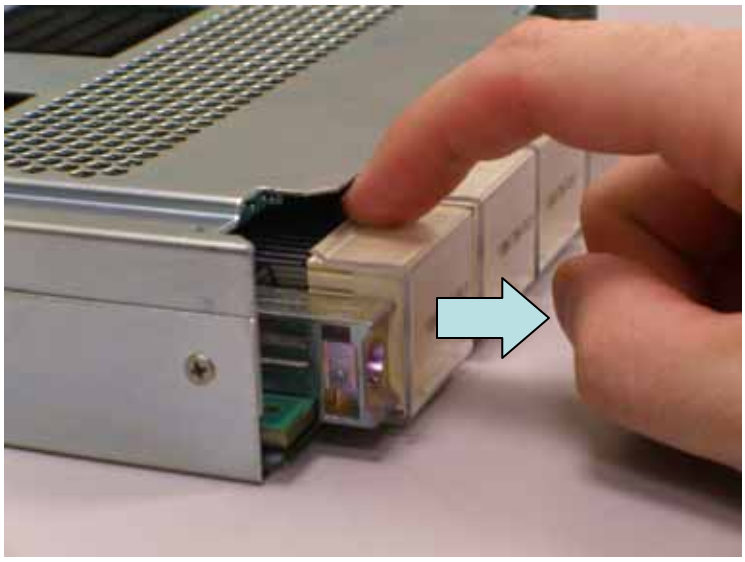
Step 8) Remove Mid-plane Connector Pin Covers



IMPORTANT! Failure to remove the covers will prevent the proper installation of the CPU Blade.

Remove Mid-plane Connector Pin Covers

- ❑ Remove the four plastic Mid-plane Connector Pin covers from the CPU blade.



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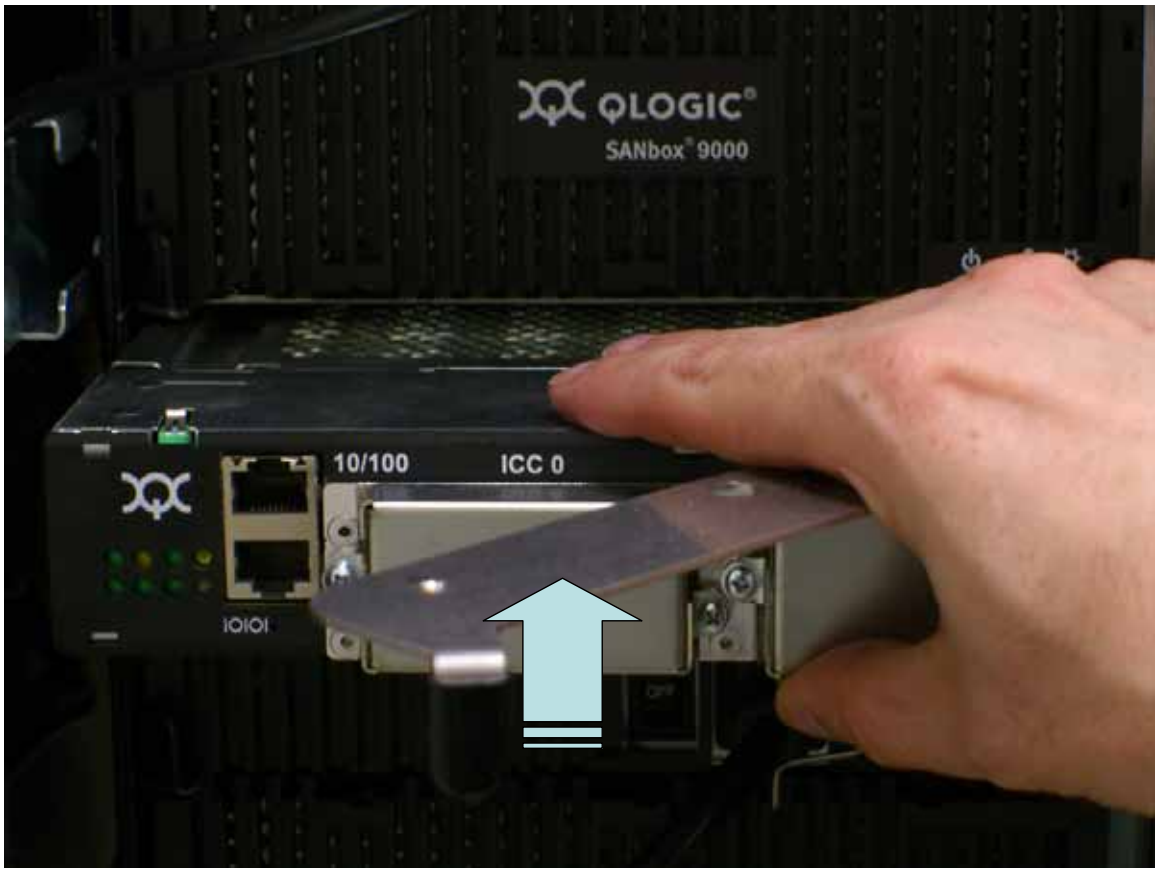
Install Replacement CPU Blade



Install Replacement CPU Blade

- With the latch on the replacement CPU Blade in the open position, slide the blade into the chassis until it makes contact with the midplane connector.

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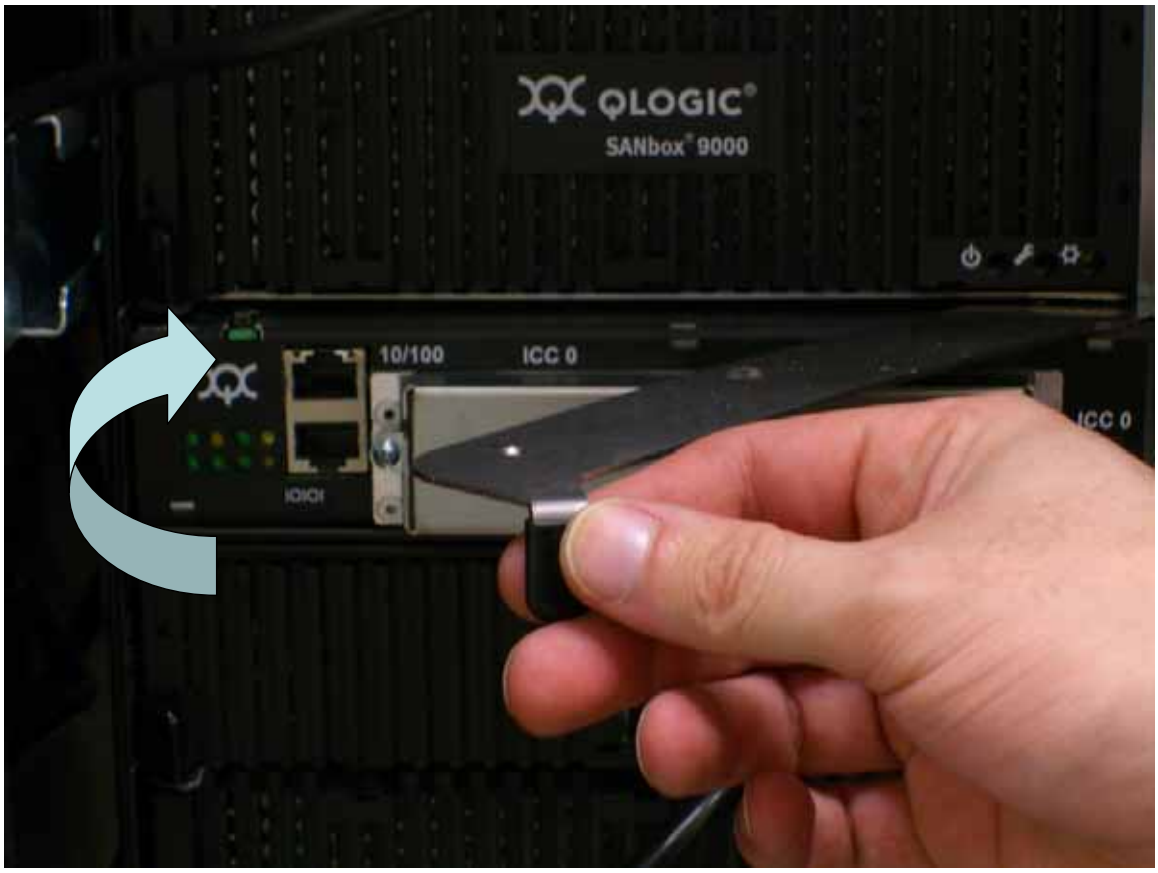
Rotate Blade Latch to Closed Position



Rotate Blade Latch to Closed Position

- Rotate the latch to lock the CPU Blade in place.

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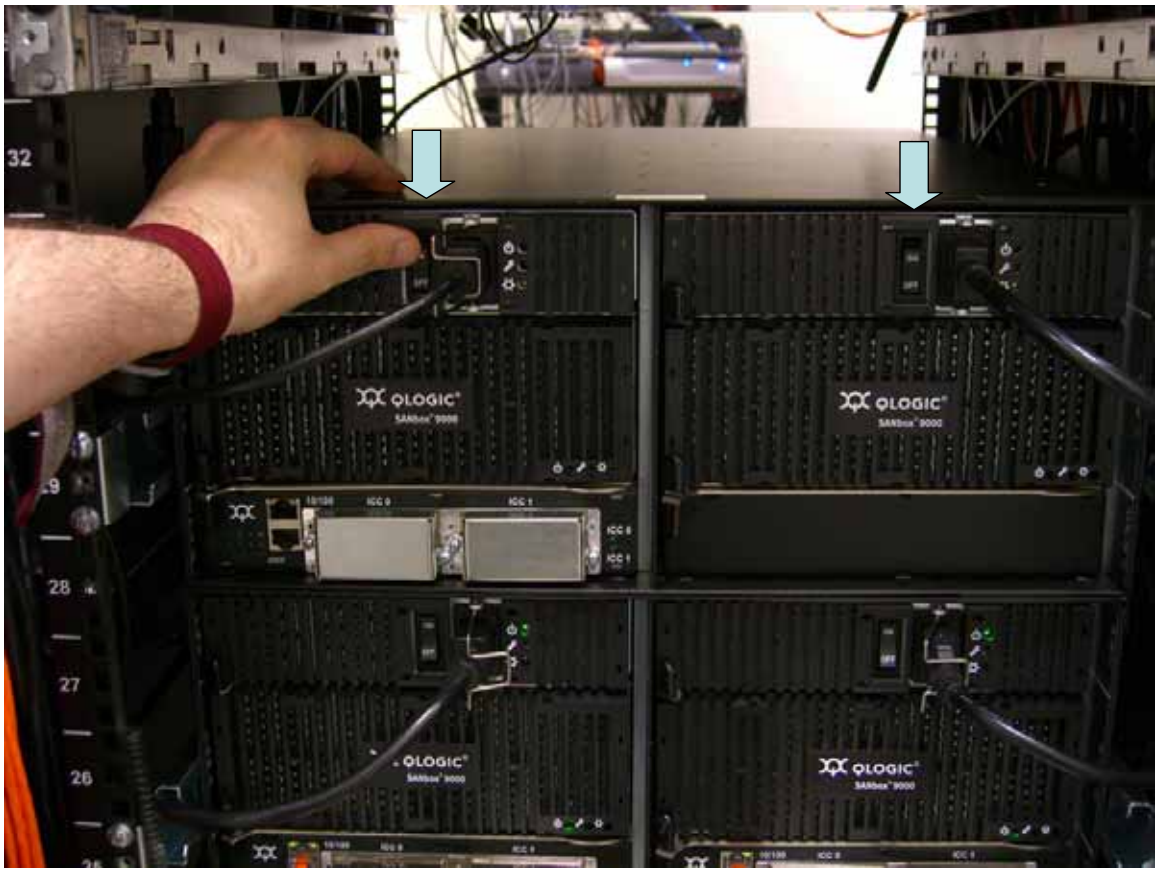
Power Up the Switch



Power Up the Switch

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Attach Workstation Ethernet Cable

Attach Workstation Ethernet Cable

- ❑ Reattach the Ethernet Cable attached to your **workstation**.

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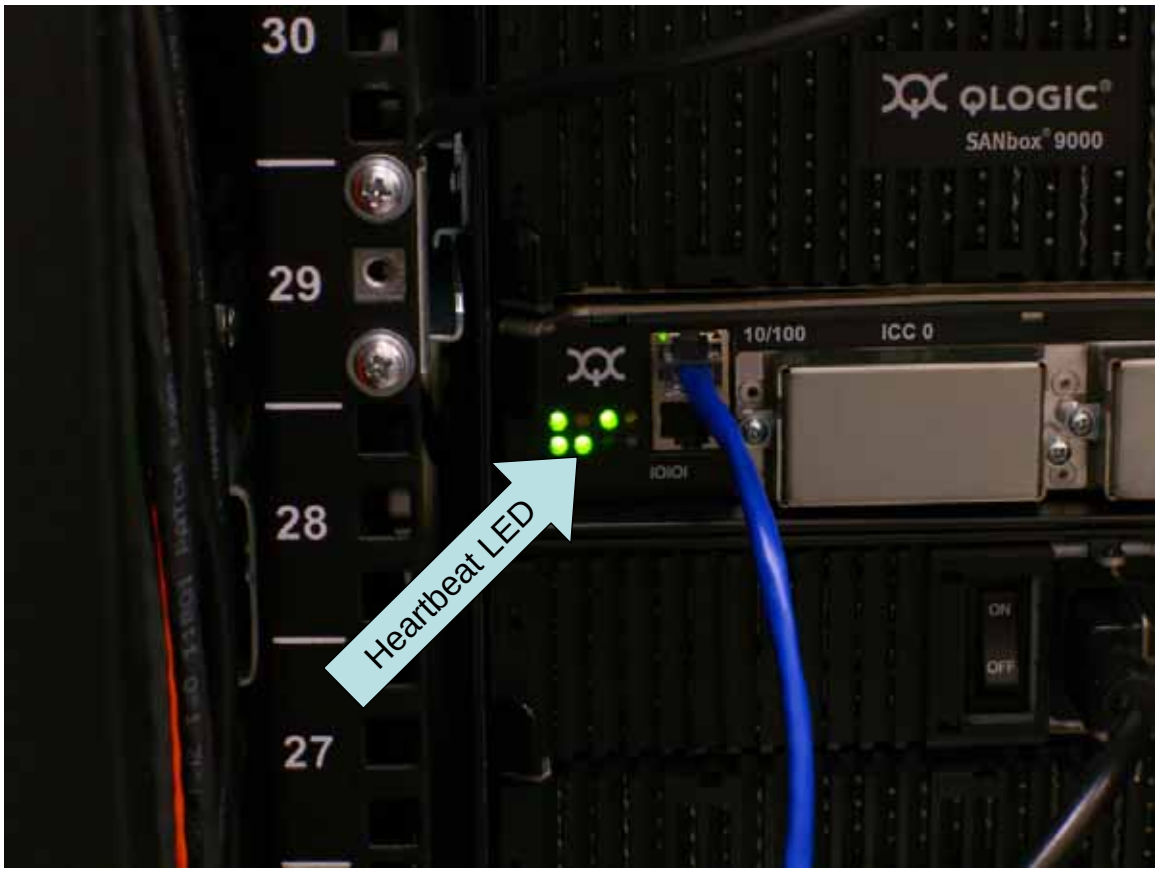
Observe Heartbeat LED



Observe Heartbeat LED

- ❑ Wait until the Heartbeat LED indicates a normal status (flashes once a second).

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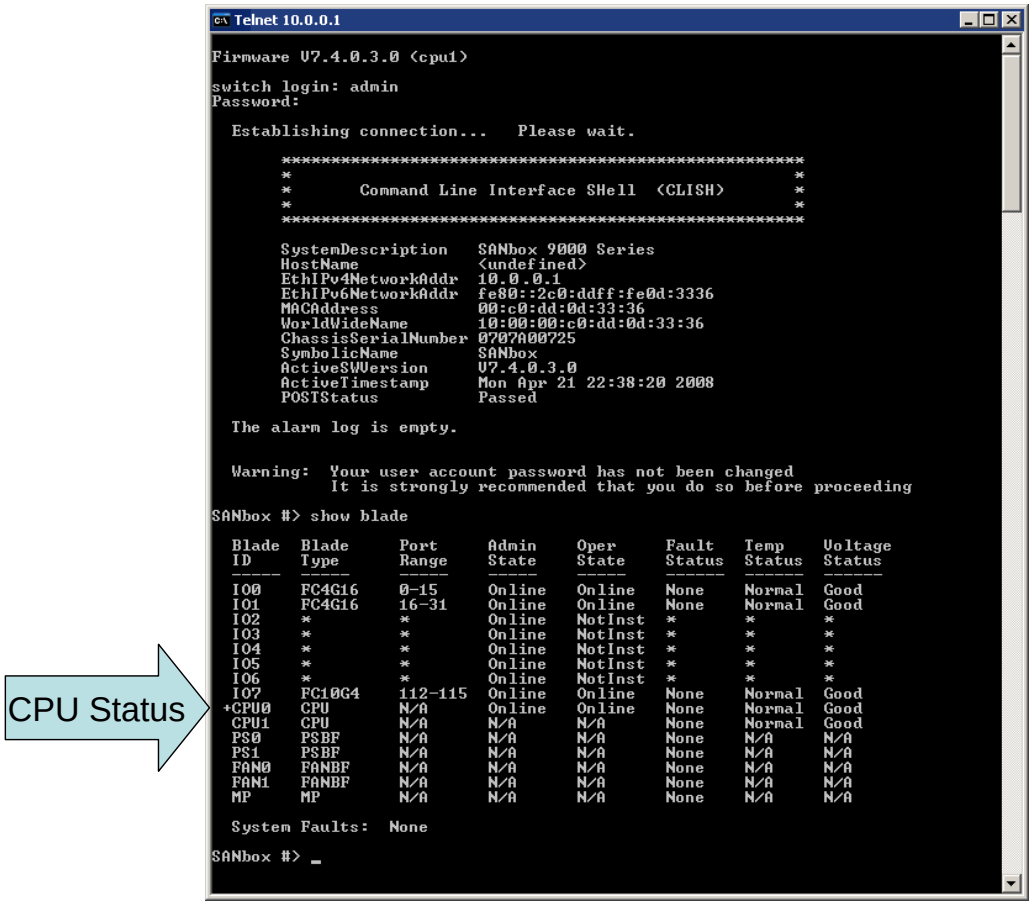
Verify POST Results


Telnet 10.0.0.1
Firmware V7.4.0.3.0 (cpu1)
switch login: admin
Password:
Establishing connection... Please wait.
* Command Line Interface SHell (CLISH) *
SystemDescription SANbox 9000 Series
HostName <undefined>
EthIPv4NetworkAddr 10.0.0.1
EthIPv6NetworkAddr fe80::2c0:ddff:fe0d:3336
MACAddress 00:c0:dd:0d:33:36
WorldWideName 10:00:00:c0:dd:0d:33:36
ChassisSerialNumber 0707A00725
SymbolicName SANbox
ActiveSWVersion V7.4.0.3.0
ActiveTimestamp Mon Apr 21 22:38:20 2008
POSTStatus Passed
The alarm log is empty.
Warning: Your user account password has not been changed
It is strongly recommended that you do so before proceeding
SANbox #> show blade
Blade ID Blade Type Port Range Admin State Oper State Fault Status Temp Status Voltage Status
IO0 FC4G16 0-15 Online Online None Normal Good
IO1 FC4G16 16-31 Online Online None Normal Good
IO2 * * Online NotInst * * *
IO3 * * Online NotInst * * *
IO4 * * Online NotInst * * *
IO5 * * Online NotInst * * *
IO6 * * Online NotInst * * *
IO7 FC10G4 112-115 Online Online None Normal Good
*CPU0 CPU N/A Online Online None Normal Good
CPU1 CPU N/A N/A N/A None Normal Good
PS0 PSBF N/A N/A N/A None N/A N/A
PS1 PSBF N/A N/A N/A None N/A N/A
FAN0 FANBF N/A N/A N/A None N/A N/A
FAN1 FANBF N/A N/A N/A None N/A N/A
MP MP N/A N/A N/A None N/A N/A
System Faults: None
SANbox #>
CPU Status

Verify POST Results

- ❑ Open a telnet session to the switch. Since this CPU has not be configured, you will need to telnet to **10.0.0.1** (default IP Address). Make sure your workstation Ethernet port can access the subnet.
- ❑ Login in using the default username (**admin**) and password (**password**).
- ❑ From the command line, use the **show blade** command to view the status of the CPU blade.

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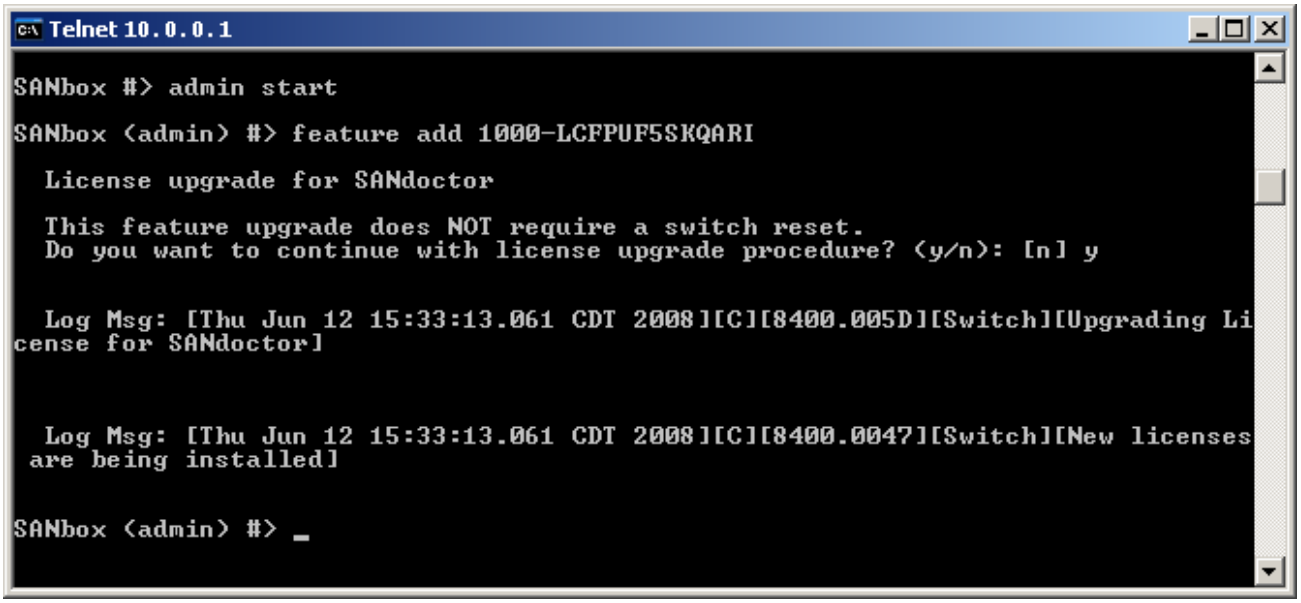
Reinstall License Keys


Telnet 10.0.0.1
SANbox #> admin start
SANbox (admin) #> feature add 1000-LCFPUF5SKQARI
License upgrade for SANdoctor
This feature upgrade does NOT require a switch reset.
Do you want to continue with license upgrade procedure? (y/n): [n] y
Log Msg: [Thu Jun 12 15:33:13.061 CDT 2008][C][8400.005D][Switch][Upgrading License for SANdoctor]
Log Msg: [Thu Jun 12 15:33:13.061 CDT 2008][C][8400.0047][Switch][New licenses are being installed]
SANbox (admin) #> _

Reinstall License Keys

- From the telnet session, use the **admin start** command to put the switch into the administrative state.
- Use the **feature add XXXX-XXXXXXXXXXXXX** command to reinstall the license keys. Where XXXX-XXXXXXXXXXXX is the key.
- Answer **y** to proceed with the upgrade.
- Repeat for all licenses.

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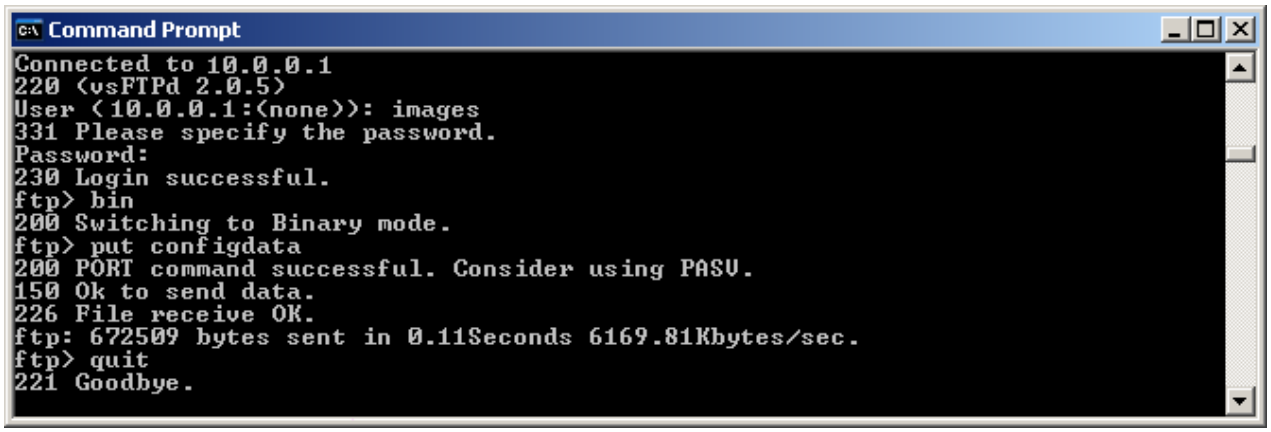
FTP Switch Configuration to Switch



FTP Switch Configuration to Switch

- From the workstation, open an FTP session to the switch. By default, the replacement CPU has an IP Address of **10.0.0.1** – make sure to change your workstation's Ethernet port settings accordingly.
- Login to the switch's FTP server. Username and password are both **images**.
- Once logged in, perform the **bin** command.
- Next, use the **put configdata** command to put the Original switch's archive on the Replacement switch.

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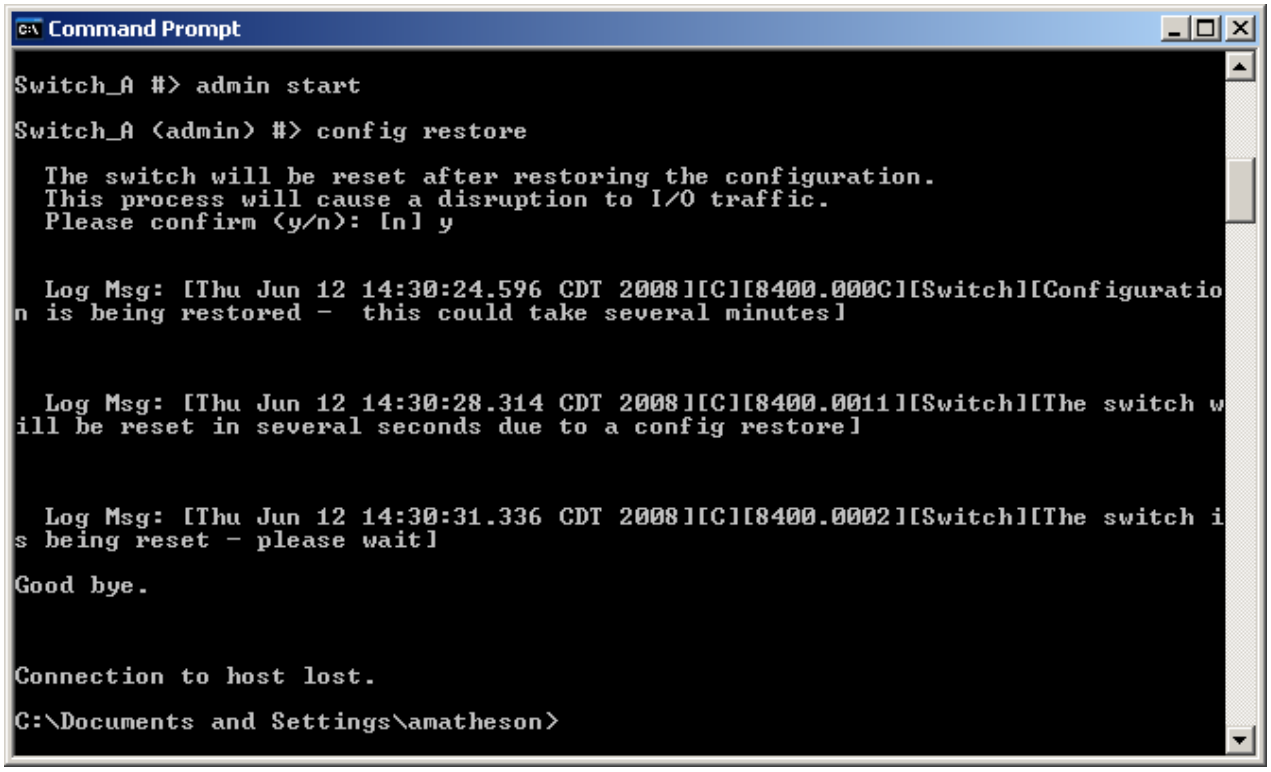
Restore Switch Configuration


Command Prompt
Switch_A #> admin start
Switch_A (admin) #> config restore
The switch will be reset after restoring the configuration.
This process will cause a disruption to I/O traffic.
Please confirm (y/n): [n] y
Log Msg: [Thu Jun 12 14:30:24.596 CDT 2008][C][8400.000C][Switch][Configuration is being restored - this could take several minutes]
Log Msg: [Thu Jun 12 14:30:28.314 CDT 2008][C][8400.0011][Switch][The switch will be reset in several seconds due to a config restore]
Log Msg: [Thu Jun 12 14:30:31.336 CDT 2008][C][8400.0002][Switch][The switch is being reset - please wait]
Good bye.
Connection to host lost.
C:\Documents and Settings\amatheson>

Restore Switch Configuration

- From the telnet session, use the **config restore** command to restore the switch's configuration.
- Answer **y** to confirm. The telent session will automatically close.

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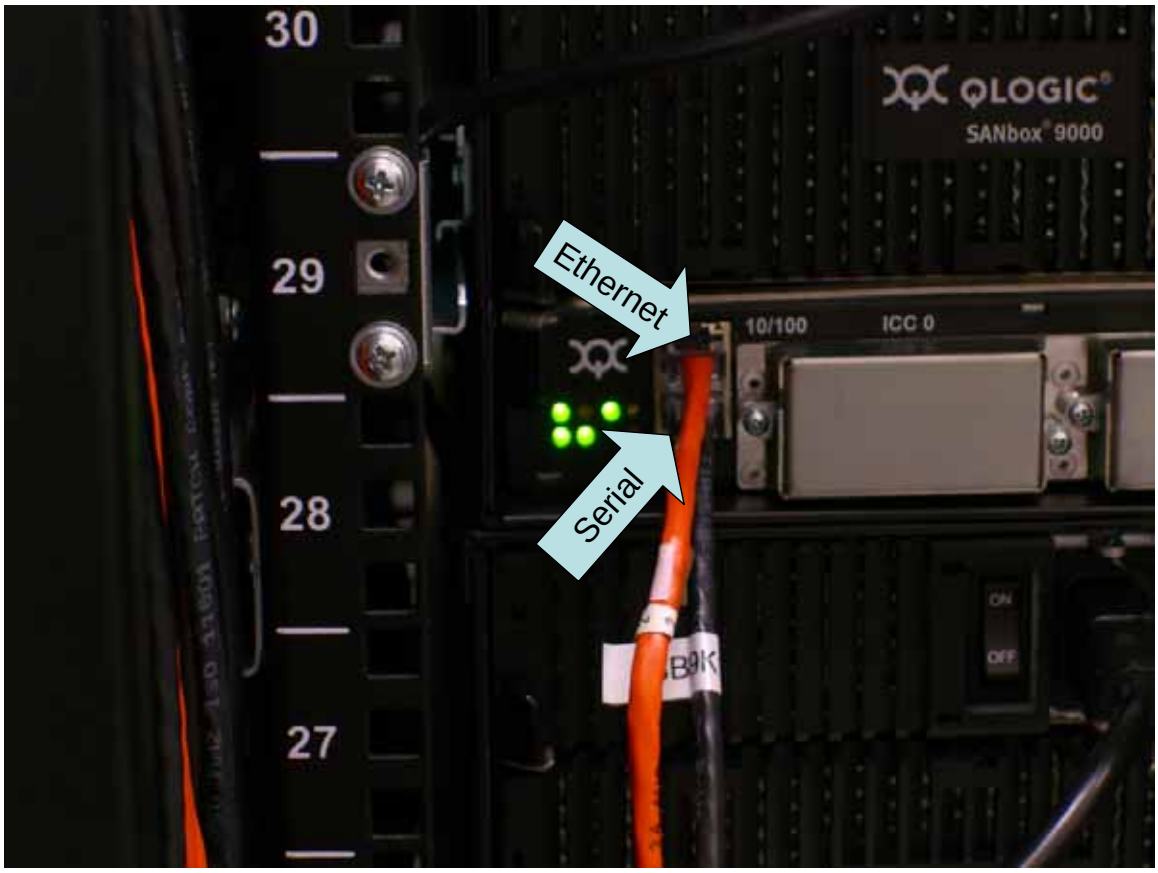
Attach Original Ethernet & Serial Cables



Attach Original Ethernet & Serial Cables

- ❑ Reattach the original cables.

Procedure Complete!
The customer can now verify the configuration.

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